Exercise specialists should be members of our health care team

Aaron Jattan MD CCFP Brent Kvern MD CCFP FCFP

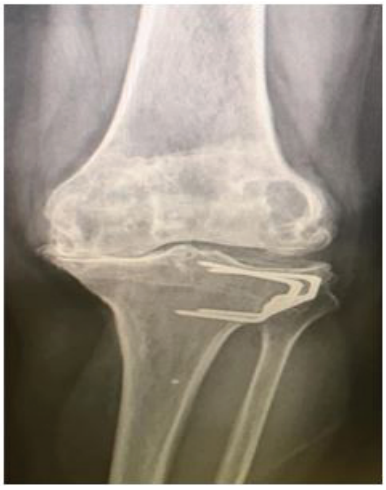
The radiograph in **Figure 1** belongs to a 57-year-old teacher who, owing to a knee injury as a teenager, has lived with knee pain for most of her adult life. After requiring a meniscectomy in her 20s and an osteotomy in her 30s, she battled severe osteoarthritis by her early 40s and, as a result, became sedentary and overweight, with a body mass index of more than 35 kg/m^2. She initially presented to her family doctor with complaints of knee pain while teaching her students every day. Soon the pain caused her to wake at night, requiring her to take regular analgesics. She described the pain as "9 out of 10" when she was wait-listed for a total knee arthroplasty. One year later she described her pain as "1 out of 10" and had her name removed from the wait list.

The most important change while she was wait-listed was that she began to exercise under the care and guidance of experts, and it is time that we include these experts, such as kinesiologists, on our allied health care teams.

Well-known benefits

Family physicians know and believe in the wide-ranging benefits of exercise. The *Canadian Physical Activity Guidelines* recommend at least 150 minutes per week of moderate- to vigorous-intensity aerobic exercise mixed with muscle and bone strengthening activities.[1] The Canadian Cardiovascular Society recommends exercise to lower the risk of ischemic heart disease.[2] Exercise with resistance training is recommended for the treatment of osteopenia and osteoporosis.[3] And yes, we know that exercise and strength training improve both pain and functioning in patients living with knee osteoarthritis.[4]

Figure 1. Radiograph of the knee of the 57-year-old patient



However, we as a health care community seem to struggle to prescribe exercise. The likely source of this challenge is demonstrated in studies of family medicine graduates, who have shown not only a lack of confidence in managing orthopedic conditions but who also feel insufficiently prepared to prescribe exercise upon graduating.[5,6] This is despite the evidence that exercise promotion by family physicians can positively affect participation in physical activity and its maintenance by patients.[7] It has been shown that most physicians do attempt to discuss diet and exercise with their patients, but the average discussion lasts only about 90 seconds.[8] It seems that while we are usually aware of exercise guidelines and try to educate our patients about them, most of us seem to lack the training to help our patients transform our recommendations into their actions.

This patient's journey highlights this deficiency. Early in the course of her illness, her family doctor and orthopedic surgeon recommended weight loss and informed her that regular exercise and weight training could limit pain and improve her quality of life. She joined a local gym and attempted to exercise on her own. However, she never went into the weight room because it "intimidated" her. Instead, she would briefly jog on a treadmill. She explained, "It didn't matter what I did; I felt like I was staring at the clock and trying to put in the time." Not seeing any positive results, she lost motivation and allowed her gym membership to lapse. Her doctors ultimately had communicated the destination without providing a road map.

Leveraging what we know

We are normally quite comfortable accessing our health care team for our patients; we consult dietitians readily for comprehensive nutrition advice, physiotherapists for musculoskeletal injury management, or pharmacists for dosing or drug interactions. It is time we expand that health care team to include those who can help our patients exercise effectively and safely. Sending a patient who has never exercised before into a gym, armed only with the knowledge gleaned from an office visit, is a recipe for failure. If we access the professionals in our communities who have expertise in helping individuals reach their physical activity goals, we can

increase the chances of our patients realizing a long-term commitment to exercise.

It is important to consider the resources available to family physicians motivated to focus on exercise counseling. Exercise is Medicine Canada is an invaluable nationwide leader for physical activity promotion in chronic disease prevention and management. Its team has designed an exercise prescription tool for practitioners that additionally assists in referrals to qualified exercise professionals such as kinesiologists and certified personal trainers.[9] This initiative also outlines how to recognize professionals whom we can entrust our patients to. There are also opportunities for further training with the Certificate of Added Competence in Sport and Exercise Medicine (CCFP[SEM]) from the College of Family Physicians of Canada. There are 288 family doctors with this Certification, and referrals to these specialists, if available, are generally covered by provincial health plans.[10]

The patient referenced above decided to attend a facility with classes and trainers, many of whom had degrees in kinesiology or physiotherapy and certifications in personal training. Initially it was intimidating seeing athletic men and women lifting barbells and running at top speeds. However, under the guidance of the professionals, she quickly learned how to modify exercises and exercise safely. She began participating in a mixture of aerobic training with rowing and biking, and resistance training using barbells and dumbbells. She attended classes regularly for 6 months before she removed herself from the wait list. In that time, she had lost 20 pounds and had begun to sleep and teach without pain.

The obvious barrier to accessing these services is the financial cost. Many services outside of a sport medicine referral are not currently covered by provincial health plans, and perhaps broader coverage is something we should advocate for in the future. The cost for a single knee arthroplasty has reached $900, before hospital costs, and we are performing more than 67 000 knee replacements a year, a number that continues to grow.[11,12] Exercise referral schemes administered and funded by the government exist in both the United Kingdom and New Zealand for the purpose of increasing physical activity in patients with chronic disease.[13,14] The referral scheme allows for family doctors to medically clear patients as being safe for exercise before referring them to designated exercise specialists within their communities. In the interim, there remain affordable options in many larger Canadian communities. The YMCA, for example, has assisted memberships based on income, which allows members to participate in supervised group classes.[15]

Looking to our communities

Family medicine is ultimately a community-based discipline, and this is a core principle outlined by the College of Family Physicians of Canada.[16] We are members of our respective communities and should mobilize available resources to best serve our patients. Accordingly, we should begin to seek out and include exercise specialists within our communities to be a part of our allied health care teams and whom we rely on to support our patients. The patient in this case found a resource that helped her exercise safely and effectively, and this ultimately changed her disease outlook and her life. We should be ready to guide our own patients to those resources within our own communities.

Dr Jattan recently completed his family medicine residency at the University of Manitoba in the Brandon satellite stream and is currently affiliated with the Department of Family Medicine at the University of Manitoba and working as a hospitalist and family physician in Winnipeg, Man. **Dr Kvern** is Associate Professor in the Department of Family Medicine at the University of Manitoba and Director of Certification and Examinations for the College of Family Physicians of Canada.

Competing interests
None declared

Correspondence
Dr Aaron Jattan; e-mail **aaron.jattan@umanitoba.ca**

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